

What is claimed is:

1. A method for sending an authentication key to a calling party, the method comprising:

5 with a telephone network, routing a call from a calling party to a server, the calling party initiating the call from a calling line identified by a calling line identifier; with the telephone network, determining an authentication key associated with the calling line identifier; sending the authentication key to the server; and sending the authentication key from the server to the calling party.

- 10
2. The invention of Claim 1, wherein the call is routed using a service switching point.

15 3. The invention of Claim 1, wherein a service control point determines the authentication key associated with the calling line identifier.

20 4. The invention of Claim 1, wherein the server comprises a connectivity server, and wherein the authentication key is sent to the connectivity server through a key distribution server.

25 5. The invention of Claim 4, wherein the authentication key is sent to the key distribution server through a firewall.

6. The invention of Claim 1, wherein the calling line identifier comprises a directory number.

7. A method for sending an authentication key to a calling party, the method comprising:

routing a call from a calling party to a connectivity server through a service switching point, the calling party initiating the call from a calling line identified by a calling line identifier;

sending a query from the service switching point to a service control point, the query comprising the calling line identifier;

with the service control point, determining an authentication key associated with the calling line identifier;

10 sending the authentication key to a key distribution server;

sending the authentication key from the key distribution server to the connectivity server; and

sending the authentication key from the connectivity server to the calling party.

12. The invention of Claim 7 further comprising:

removing the authentication key from key distribution server.

14. The invention of Claim 7, wherein the authentication key is sent to the key distribution server through a firewall.

16. The invention of Claim 7, wherein the connectivity server is in communication with the service switching point via a modem.

20. The invention of Claim 7, wherein the service control point retrieves the authentication key from a database correlating authentication keys and calling line identifiers.

25. The invention of Claim 7, wherein the calling line identifier comprises a directory number.

13. The invention of Claim 7, wherein the query is sent from the service switching point to the service control point in response to a terminating attempt trigger.

14. A system for sending an authentication key to a calling party, the system comprising:

5 a server;

a service switching point operative to route a call from a calling party to the server, the calling party initiating the call from a calling line identified by a calling line identifier;

10 a database correlating authentication keys and calling line identifiers; and

a service control point in communication with the database and operative to determine an authentication key associated with the calling line identifier in response to a query from the service switching point, wherein the service control point is further operative to send the authentication key associated with the calling line identifier to the server;

15 wherein the server is further operative to send the authentication key to the calling party.

20 15. The invention of Claim 14, wherein the server is part of a computer network comprising a second server, and wherein the authentication key is sent to the first-mentioned server via the second server.

25 16. The invention of Claim 15, wherein the first-mentioned server comprises a connectivity server, and wherein the second server comprises a key distribution server.

17. The invention of Claim 14 further comprising a firewall, wherein the authentication key is sent to the server through the firewall.

30 18. The invention of Claim 14, wherein the calling line identifier comprises a directory number.

19. The invention of Claim 14, wherein the service switching point is operative to send the query to the service control point in response to a terminating attempt trigger.

5 20. The invention of Claim 14 further comprising a modem connecting the server with the service switching point.

10 21. The invention of Claim 7 further comprising:
marking the authentication key as distributed.

22. A method for sending an authentication key to a calling party, the method comprising:

routing a call from a calling party to a connectivity server through a service switching point, the calling party initiating the call from a calling line identified by a calling line identifier;

sending a query from the service switching point to a service control point, the query comprising the calling line identifier;

with the service control point, determining whether an authentication key for the calling line identifier exists in a key distribution server;

if the authentication key for the calling line identifier exists, sending an indication to the key distribution server that the authentication key stored in the key distribution server should be sent to the calling party;

sending the authentication key from the key distribution server to the connectivity server; and

25 sending the authentication key from the connectivity server to the calling party.

23. The invention of Claim 22 further comprising:
removing the authentication key from key distribution server.

24. The invention of Claim 22 further comprising:
marking the authentication key as distributed.
- 5
25. The invention of Claim 22, wherein the indication is sent to the key distribution server through a firewall.
- 10
26. The invention of Claim 22, wherein the connectivity server is in communication with the service switching point via a modem.
- 20
27. The invention of Claim 22, wherein the service control point determines whether an authentication key exists for the calling line identifier by consulting a database storing calling line identifiers for which authentication keys exist.
28. The invention of Claim 22, wherein the calling line identifier comprises a directory number.
29. The invention of Claim 22, wherein the query is sent from the service switching point to the service control point in response to a terminating attempt trigger.
30. A method for sending an authentication key to a calling party, the method comprising:
with a telephone network, routing a call from a calling party to a server, the calling party initiating the call from a calling line identified by a calling line identifier;
with the telephone network, providing the server with the calling line identifier;
with the server, authenticating the calling party with the calling line identifier; and
sending an authentication key from the server to the calling party.
31. The invention of Claim 30, wherein the calling line identifier comprises a directory number.

32. The invention of Claim 30, wherein the server comprises a connectivity server, and the invention further comprises:

before the authentication key is sent from the connectivity server to the calling party, sending the authentication key to the connectivity server from a key distribution server.